Minimum Remove to Make Valid Parentheses (View)

Given a string `s` of `'('` , `')'` and lowercase English characters.

Your task is to remove the minimum number of parentheses (`'('` or `')'`, in any positions) so that the resulting *parentheses string* is valid and return **any** valid string.

Formally, a *parentheses string* is valid if and only if:

- It is the empty string, contains only lowercase characters, or
- It can be written as `AB` (`A` concatenated with `B`), where `A` and `B` are valid strings, or
- It can be written as `(A)`, where `A` is a valid string.

Example 1:

```
Input: s = "lee(t(c)o)de)"

Output: "lee(t(c)o)de"

Explanation: "lee(t(co)de)" , "lee(t(c)ode)" would also be accepted.
```

Example 2:

```
Input: s = "a)b(c)d"

Output: "ab(c)d"
```

Example 3:

```
Input: s = "))(("

Output: ""

Explanation: An empty string is also valid.
```

Constraints:

- `1 <= s.length <= 10`^{5}
- `s[i]` is either`'('` , `')'`, or lowercase English letter`.`